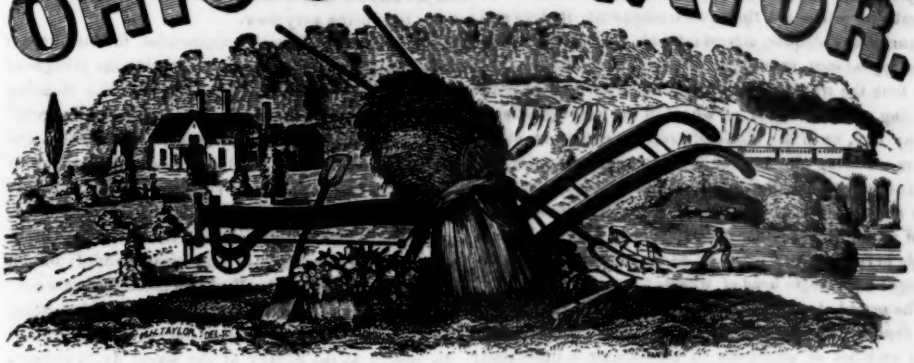
OHIO CULTIVATOR.



Devoted to Agriculture, Horticulture and Domestic Economy.

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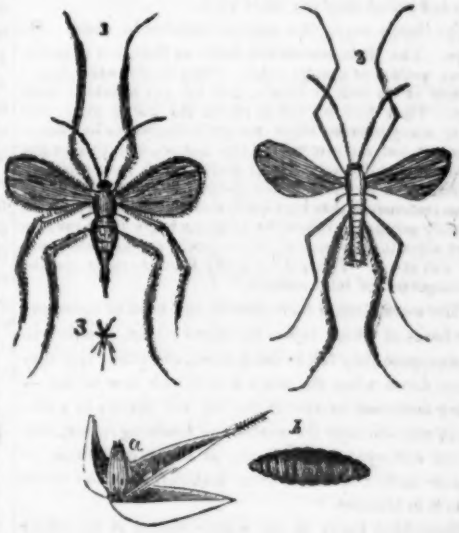
Address M. B. BATEHAM, Columbus, O.

The Wheat Fly and Hessian Fly.

Injury to the Wheat Crop in Central Ohio.

Much injury has been done to the wheat crop in this and several adjoining counties, during the past two weeks, by the ravages of the Wheat Fly, (*Cecidomyia tritici.*)—To many of our farmers this is an entirely new enemy—very little if any mischief having been done by it before in this region. It is called by some the *worm*, or *yellow worm;* by others *weevil, red weevil*, &c. Our attention was first called to its ravages, during a visit to Delaware county, on the farm of David Gregory, the 21st of June. It had then been at work for some days. On our way home we found the insects in many fields of wheat (not early varieties) in both Delaware and Franklin counties; and we have since learned that the mischief extends into Licking and Knox—how much farther, or how extensive the injury may prove in these counties we are not as yet informed. From our observations and information received, we fear that the loss sustained from this cause (and also by rust) will prove very severe, throughout a large portion of the State. Some entire fields, which promised well at the time of blossoming, are wholly destroyed by this new devastator. Not one head can be found uninjured; and in some cases from 6 to 12 worms may be found in a single husk or kernel. The appearance of this insect in such destructive numbers, where it has never been seen before, has naturally excited much apprehension and inquiry among the farmers; and as many erroneous opinions prevail in regard to the name, habits and history of the insect, we will here give a few remarks on the subject with illustrations.



The Wheat Fly.—(*Cecidomyia tritici:*—Kirby.)—[*"Wheat Worm," "Yellow Worm" or "Red Weevil"* of many farmers.]

Fig. 1. Female fly—2. male do.—the figures greatly magnified.
3. Natural size of the fly, about one-fifth of an inch in length.
a. Kernel of young wheat with the husk or chaff open, showing the worms (*larvæ*) feeding on the grain.
b. The *pupa* (dormant state) of the insect magnified.

The fly above represented, and which produces so much mischief, is so small as to be scarcely visible except to very good eyes. Its body is but little larger than its offspring, the tiny worm which is found in the heads of wheat; its wings are thin and transparent; its legs and antennæ very slender, almost invisible. These flies make their appearance, sometimes in countless myriads, about the time the wheat is in blossom, and may then be seen dancing over the heads of wheat in the evening after a sunny day, or in the shade of trees or clouds at other hours During the heat of the day they rest near the ground among the plants of wheat or grass, but are active during the night. The eggs are deposited in the chaff around the kernel—often as many as 8 or 10 in a single kernel; and as many as 30 flies have been found engaged on a single head of wheat.

The period at which these flies make their appearance, and deposite their eggs, seems to be just when the common varieties of wheat are in blossom, or a little past that time; and no eggs are deposited when the wheat has progressed much past that period; hence we have found that the early varieties of wheat, and fields sown early on dry well tilled land, have entirely escaped, while later fields in the same vicinity are destroyed. This should induce farmers in districts where the fly has appeared, to procure the earliest varieties of seed, and sow as early as can well be done. The *rust*, too, is always more destructive to late than early sown wheat. The only danger is, that early sown wheat will be more liable to the attacks of that other little pest,the Hessian Fly, (a brother of the foregoing) which sometimes makes sad havoc in this country. But as this insect has not been generally prevalent of late, we should prefer running the risk of this one evil rather than the other two.

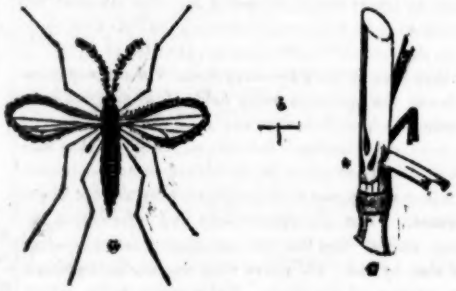
Dr. Harris says, "the eggs are hatched in about eight days. The little worms are white at first, but soon become yellow or orange color. They do not exceed one-eighth of an inch in length, and are not provided with feet. They feed on the germ in the milky state, and their ravages cease when the grain begins to harden.—They do not burrow within the kernel, but live on the pollen and soft matter of the grain which they probably extract from the base of the germ. It appears from various statements that very early and very late sown wheat usually escapes. When the maggots begin their ravages soon after the blossoming of the grain the kernels never fill out at all. Pinched or partly filled kernels are the consequence of later attacks."

The worms attain their growth, and most of them quit the heads of wheat before the straw ripens. Some writers suppose they fall to the ground, and others that they crawl down when the straw is wet with dew or rain.—They doubtless burrow in the soil and remain in a dormant state through the winter and following spring, then if not destroyed by the frosts or other casualities, reappear as flies to renew their mischief, when the wheat crop is in blossom.

Sometimes many of the worms remain in the wheat heads till harvest, and may be seen in great numbers on the floor or among the chaff and grain at the time of thrashing. In such cases, farmers should take pains to burn or otherwise destroy them. When the crop is not worth harvesting, it is advisable to mow the straw and burn it on the field as soon as dry enough. And incases where the crop is only partially destroyed, the straw and chaff, if not wanted for other purposes, may be immediately hauled and spread on the stubble field and burned, and thereby may destroy a large portion of the worms that are still on the surface of the ground—their motions at this time being very slow.

Experiments have been recommended, for the purpose of discovering some means of preventing the ravages of this fly by means of direct applications to the standing crop, at the time the insects begin to make their appearance, but nothing satisfactory or valuable has been discovered. Smoking the fields by means of numerous smouldering fires at night, is suggested by Dr. Fitch as quite likely to be effectual, but quite too laborious. Dusting the entire field with air-slacked lime, while the heads are moist with dew, has also been recommended; but an experiment detailed by Dr. F. shows that a complete covering of lime dust will not prevent the flies from going on with their work of depositing the eggs.

In regard to the history of the wheat fly, it appears, from the essay of Dr. Fitch (See *Ohio Cultivator, Feb.* 1, 1846, and *Trans. N. Y. Ag. Soc.*, 1845,) and the treatise of Dr. Harris, that it was known and described in England as early as 1771. In 1828, and for several years afterward, it was very destructive in various parts of England and Scotland, as appears by Loudon's magazine and other journals. In the United States, its first appearance is said to have been in vermont in 1820. But it did not attract much attention till 1828 and 1829. From that time till the present it has almost every year committed sad ravages in some portions of the eastern states. In eastern an central New York it has often appeared, and occasionally in small numbers in the Genesee country, but not so as to excite much alarm. The same we learn may be said of Ohio; some farmers having assured us they have several times before found these worms in their wheat at harvest time, though not in sufficient numbers to cause much damage or apprehension. It has been found in some places that these insects, like the Hessian fly, have suddenly disappeared after being quite destructive for one or more years; we may hope, therefore, that this new enemy will be only a temporary or occasional visitant in our wheat fields. Perhaps, too, its ravages the present yerr are confined to a smaller portion of the state than we at present suppose; and the injury done thereby may not seriously affect the aggregate of our great staple crop.



The Hessian Fly.—(*Cecidomyia destructor.*—Say.)

a. Hessian fly, (female) magnified,—the cross lines *b* show the *real* length of the body and breadth of wings; *c*, a joint of wheat stalk with the surrounding sheath broken down, showing the *pupa* or larva case of the insect, commonly called the "flax seed state," at *

The above representation will show how very closely the Hessian fly resembles in form and size its congener the wheat fly, described on the foregoing page. They are only different species of the same genus. In appearance they can scarcely be distinguished by the naked eye. Their habits and modes of subsistence, however, are very dissimilar. The Hessian fly deposits its eggs on the leaves of the young plant in the fall and spring, and the worms feed on the juices of the young stem or root of the plant, thereby preventing its growth, or causing the straw to fall before mature.

The Weevil, properly so called, is of another class of insects, entirely different from the foregoing, and rarely troublesome in this climate. It feeds only on the ripened grain after being thrashed or harvested.

Corn, Clover, and Wheat.

If there is one defect in the system of cultivating land in Ohio, that requires reforming more than another, it is that of sowing wheat after corn, as late as the months of October and November. It almost invariably is the case, when this practice is followed, that a very inferior crop is harvested. The average yield of wheat produced after corn, certainly does not exceed fifteen bushels per acre; and twenty-five bushels per acre, is rarely obtained, where corn is cultivated extensively. Land planted with a medium early variety of corn, by practicing extra care in its culture, so as to bring it forward to maturity by the first week of September, will doubtless prove as perfect a mode of preparing land for wheat, as if it had been expensively summer fallowed; but to secure complete success, the wheat should not be sown after the fifteenth of September. In rare instances, a crop of twenty to thirty bushels of wheat per acre may be had after corn if sown at a later period than the above; but in an average of cases, it will be found that it is one of the most objectionable modes of management, with which the farmers of Ohio are familiar, unless especial care be taken to sow early in the month of September. The profits of a crop of wheat yielding fifteen bushels per acre, when the cost of production, harvesting, threshing, cleaning and delivering to market, together with the rent of land, are all carefully taken into the account, will be barely nominal.

It is a fact that cannot in fairness be dispated, that 15 bushels per acre, is a full average of the wheat lands of this State; although in many instances, as high as 25, 30, and even 40 bushels are obtained by those who take extra pains in the cultivation and management of their land for this crop. Probably one tenth of the farmers of this State obtain 20 bushels; and one twentieth of them as high as thirty bushels per acre, in an average of years. Yet, when we come to examine minutely, the natural qualities of the soil of the most successful and unsuccessful farmers, the difference in the results can only in part be attributed to that source. The real fact of the case is, their systems of culture, if such they may be called, are practiced, without regard to their adaptation to the soil and climate of the country. The natural qualities of the soil of Ohio are of such a superior character, that by a more rational and scientific mode of cultivation, and with a trifling additional investment of capital, the entire average of the wheat crop extending over an indefinite period of time might be brought up to 25 bushels per acre, A much more flattering result than this might be obtained under favorable circumstances, but occasionally severe losses are sustained through causes that cannot be guarded against, which are calculated to reduce the average, when extended to the whole country, and spreading over a series of years.

It would not serve a useful purpose, to enter into a minute calculation showing the advantages that would accrue to the country, if by the adoption of any improved system of farming, the average yield of wheat extending over the entire wheat growing districts of the State was to equal thirty, twenty-five or even twenty bushels per acre. Such a course of reasoning would be considered too speculative by most practical men, and hence we shall not indulge in it. Our object in penning these remarks is to show the advantages that would accrue to the wheat and corn growers if they would generally introduce as a rotation crop, the culture of clover. Clover may be grown successfully with the wheat crop, the seed of which should be sown in the month of Feb., or March, so as to get the benefit of the spring rains. When sown with this crop, the most profitable course would be, to plant the ground the second year with corn; in which case, if it be highly fertile, a crop of clover hay in the month of June, and a crop of clover seed in September, may be mowed, If the opposite be the case, it would be well both to keep up the fertilising properties of the soil, and for the corn crop, to pasture the clover with either horned cattle or sheep. But, in sowing clover with wheat, the corn is made to succeed the clover, and of course the wheat must follow in its order after the corn, which to our mind is very objectionable unless the ground can be cleared in time to sow it with wheat, previous to the 20th of September.

To get rid of this difficulty, would it not be better to sow the land down with clover, with the corn crop? This proposition may probably be new to most of the farmers of Ohio; but it strikes us very forcibly that it would be productive of the most favorable results, if practiced on a large scale, with a view of sowing wheat in rotation after clover. If any of the readers of the Cultivator have made experiments in sowing clover with corn, we should be glad to be favored with the results. We have seen and heard of some successful experiments of this kind, made in countries where corn grows shorter than on our fertile lands, yet we are not certain that it would be equally applicable here.

When it is intended to sow corn land with clover seed, the ground should be well worked both ways with a cultivator and shovel plow, and in working it the last time, it should be made as level and smooth as possible, so that when the corn is removed, the whole surface may appear level, so as to be adapted as well as possible for the scythe. The period for sowing clover seed among corn, would generally be in the early part of July. The quantity of seed required ought to be at least ten pound per acre, as much of it doubtless would be prevented from growing from the smothering influence of the corn

We trust that those farmers who are extensively engaged in corn and wheat culture, will make an experiment in the foregoing mode of seeding land with clover

and in due course of time, furnish us with the result of such experiments, both as it regards the clover and wheat crop.

It is probably not generally known by the farmers of this State, that their soil and climate are much better adapted for clover than New York. Here, with ordinary cultivation, a full average crop of clover may be grown without the aid of gypsum—whereas, to secure success with that crop a top dressing with plaster is almost indispensable, in older States. Where clover can be grown successfully, there will not be much difficulty in growing heavy crops of wheat, and it is known by all practical agriculturists that clover enriches, rather than impoverishes land, when fed on the ground or plowed in. If mown and the hay fed to stock, a large supply of manure would be made on the farm, which should be applied to the land for corn.

Where the soil is peculiarly well adapted for the three crops that stand at the head of this article, it would be found an excellent practice, to make it an invariable rule to seed the land also down to clover, with the wheat crop. By this means the stock kept on the farm would be furnished with pasturage from the period that the wheat was harvested to the closing in of autumn, and in the spring, up to the period that the ground should be plowed for corn. One of the principle advantages connected with this close clovering system, is, that it does most effectually keep down all description of weeds, and instead of deteroirating the soil, it is constantly improving in texture and fertility.

Hemp Culture--New Mode of Rotting.

Anderson's Hemp Dressing Machine.

Now that American hemp is attracting the favorable attention of the government and commanding a higher price in market than for some years past, the question suggests itself whether Ohio farmers who possess suitable land together with some knowledge of the business, would not find it advantageous to engage in the business of hemp growing. We learn that in Kentucky and other States adjoining us, this crop is becoming a very profitable one. We believe much of our bottom lands are as well adapted to this crop, as those of any other State, and our climate as favorable. Some years ago we learn that experiments were tried with this crop in various parts of the Scioto valley and elsewhere, but owing to the low prices, and the want of good machines the business was mostly abandoned. A few farmers in Delaware co., are the only growers of hemp that we at present know of in the State. Will not some correspondent who has given attention to this subject favor us with a communication or two respecting it?

In the recent advertisement of the Navy Department, for proposals to furnish American Water-rotted Hemp, it is stated that the quantity required annually by the government is about 500 tons; and that no bids for contracts will be considered at higher rate than $240 per ton.

"The hemp must be thoroughly dressed, cleansed, free from shives, and must not lose more than sixteen per cent. of tow and waste when hatchelled to the satisfaction of the inspectors ready for spinning. Its strength must be such that a rope of one and three-fourths of an inch in circumference, made from twenty-one yarns, as prepared and tested by the inspectors, or by their direction, will bear at least 4,200 pounds."

The present price of dew-rotted hemp, is quoted in Lovisville papers at $130@135, per ton, with active demand.

The following important correspondence is copied from the Louisville Democrat. The first letter is from the U. S. Agent for purshasing and testing hemp for the use of the Navy.

I take pleasure in communicating to the hemp-growers of the west, the annexed paper from Mr. J. Anderson, of Louisville, Ky., pertaining to this highly important branch of our agriculture.

An active, ardent, intelligent mind, has been devoted almost exclusively to this subject, in all its various bearings, for the last eight years; during which time a great number and a variety of experiments have been made, constructing and re-constructing machinery of different sorts, and incurring a heavy outlay of money, not less than twenty-five thousand dollars, in making experiments only. At length he thinks he has attained the object so intensely sought for,—the true and right management of hemp, from the cutting to its being prepared for spinning.

In the course of his numerous experiments, he has constructed a milling machine, by which hemp is softened and refined to the requisite condition for the manufacture of fine fabrics. This machine he estimates very highly, as by its use, common dew-rotted hemp may be cheaply and expeditiously prepared to make fine linen.

The advantage to be derived from the use of his brake are quite evident; they are very cheap, made mostly of cast iron, and of simple construction, costing less than one hundred and fifty dollars. A common horse-mill of two horse power, will be sufficient, with four hands, to clean a ton per day, as Mr. A. informs me. This enables the farmer to get his crop in market in the fall, instead of the spring, as this brake will completely clean hemp in a half rotted state, producing a much better article, and increasing the yield sixteen to twenty per cent. in weight of lint.

His process of water-rotting has also the great advantage of getting the crop early to market. It produces a very superior article, having a rich, oily, lively appearance, from which can be made as strong and as durable cordage as can be made from any hemp whatever; the durability is insured from the fact, that the albumen is effectually cured by the natural heat generated in the mass in bulk.

The Navy of the United States will probably consume eight hundred tons of water-rotted hemp a year, Not a half has, as yet, been produced at home. All this hemp, in the course of a few years, will be manufactured into suitable cordage for the Navy of the nation, at Memphis, in Tennessee, where the government has established, and nearly completed, the best and most perfect rope-walk ever built.

The various manufactories, and the general commerce of the country, consume more hemp than has heretofore been produced. An increased production will be required to supply our wants, and if the quality is improved, as Mr. Anderson anticipates, the quantity may be indefinitely increased. After supplying ourselves—that is, the National Navy, manufactories and our own shipping, we then have the markets of the world for the surplus.

I am informed that good Russian hemp cannot be imported for a less sum than two hundred and twenty dollars per ton.

I respectfully call the attention of hemp-growers to Mr. Anderson's improvements.

Lewis Sanders.

Louisville, April 3d, 1848.

Mr. Lewis Sanders, *U. S. Hemp Agent:*

Sir—Knowing your anxiety to further the progress of

the hemp interest of the Western States, it has occurred to me to address a few remarks to you on that subject, derived from my own experience, from a series of experiments for the past eight years.

1st. In relation to the dew-rotted hemp. It has been, and still is, the practice of hemp-growers to allow their hemp (after spreading in the fall of the year,) to remain exposed to the action of the atmosphere until a decomposition of the fibre has progressed so far as to enable them to break it with facility on the hand-brake; the quality is thereby rendered unequal, the original strength much impaired, its texture destroyed, and its weight much reduced. In consequence of the undue exposure of this article to the blighting influence of the atmosphere, a decomposition of the fibre has commenced, and its destruction is accordingly hastened, whenever exposed to ordinary heat and moisture; hence its want of durability, in comparison with water-rotted hemp.

This defect in this great staple of the West can be obviated, and will be, in the progress of time; it might be obviated at once by pursuing a better and more economical process than that heretofore observed.

Let the hemp remain in the swarth, on the field where it grew and was cut; a few rains will suffice to cure it for the brake; or after sufficient exposure to the sun, it may be stacked for fall spreading; when, after a few rains, or when half rotted, it may be shocked, preparatory to breaking. Either of these processes would be at present objected to by the practical farmer in consequence, as he would say, of the impossibility of breaking and cleaning it. The mind of the farmer is of course directed to the hand branke, (when he arrives at that conclusion,) whilst mine is directed to my improved roller hemp mill, now in successful operation near this city. By the aid of this new and simple machine, hemp, half rotted, can be broken with great rapidity; it does not impair the quality or strength of the fibre, but has a tendency to loosen the wood, by a milling process; when the wood is so severed, it is an easy matter for one hand to clean 500 to 600 pounds per day, on the hand-brake, or by scutching, or by whipping and shaking. The quality of the article so produced is bright, soft, and lustrous.

2d. In relation to water-rotting hemp. The method observed by farmers is to allow the hemp to remain immersed in water until the glutinous matter is completely dissolved; the consequence is a perfect impairation of the strength of the fibre; for a complete solution of the gum. my matter could not take place without fermentation, and fermentation is the beginning of decay. I am aware that farmers are forced to this alternative to enable them to break and clean on the hemp-brake; but hereafter they should produce a stronger and more durable article, and thereby not only supersede the Russian hemp, but become exporters of the article to all parts of Europe.—To produce an article of hemp suited to the consumption of the navy department, it is only necessary to immerse the hemp for a period of twenty-four hours, then withdraw the water, and let the hemp remain in bulk until the generation of natural heat takes place; that will be observed in the course of ten to twenty hours, after a thorough impregnation by the heat; then inundate a second time, and let it remain till you are prepared for its convenient removal. It may, after the process of heating, remain in the water for months without any disposition towards fermentation; and surely, if it does not ferment in water, there is no danger of its doing so in cordage.

With the aid of the improved milling machine, I am sure that a good hand could clean 500 pounds per day on the hand-brake, or hemp prepared as above. Hemp so prepared is remarkable for its weight and oily appearance, and just the article that would make the superintendent of the United States rope-walk exclaim, "America can beat the world." I am, truly, your friend,

JAMES ANDERSON.

He who loves money more than honor, will rate it above honesty.

Crops and Farming in Indiana.

A correspondent in Jay county, Indiana, alluding to the fertile character of much of the land in that region, gives us the following transcript from his day book:

1848. *East Field* (10 acres)	*Dr.*
April 29, Clearing off stalks	$1 50
May 6, Six days plowing	9 00
" 9, Two days furrowing	2 00
" 10, Two bushels seed corn	0 50
" 10, Eight bushels potatoes	2 00
" 12, Planting corn and potatoes; one man and two boys two days	2 50
" 25, Three days with horse and cultivator	3 00
June 10, Three days with horse and plow	3 00
" 25, Four days with do	4 00
Sept. 10, Man, team and three boys plowing out and hauling potatoes	3 00
Nov. 5, Twenty-one days husking corn	15 00
" 7, Seven days, man and team, hauling do	10 50
	$56 00

	Cr.	
By 125 bu. potatoes at 20 cts.	$25 00	
By 724 bu. corn at 20 cts.	144 80	
		$169 80
Deduct expenses as above		56 00
Nett profits of 10 acres		$113 80

This was the ninth crop in succession off the same ground, without manure; eight of corn and one of wheat. The potatoes were sound and good.

The above statement was furnished us in a private letter by a brother of ours. The work was all done by himself and three boys. His farm is one of the best in the country, and is offered for sale at a very low price for its quality—only about $10 per acre, with good improvements.

Address GEORGE BATEHAM, *Bear Creek, Jay county, Ia*

Good Crops in Indiana.

EDS. CULTIVATOR—Ira Hopkins having stated in the November number of the Cultivator, (1848,) how thirty bushels of wheat could be raised to the acre, I have concluded to tell you how I raised one hundred bushels on three acres, and eighty-four bushels on three acres and eighty-nine rods, the past season, on land that produced but thirteen bushels to the acre in 1839, which was one of the best wheat seasons in this neighborhood, we had been favored with for the last ten years.

In the spring of 1847, I plowed three acres of clover and timothy sod, as deep as possible. On the 16th April, harrowed, cross plowed, harrowed again, made drills about two feet eight inches asunder, manured the drills liberally, dropped potatoe sets in the drills, about nine inches apart, covered by running the plow both ways in each drill. Some days after, pulled a little off the top of each drill with a hoe. When the plants were 8 or 10 inches high, plowed the soil from each side of the drills, run a cultivator between to level and pulverise; run the plow both ways, and threw back the soil to the plants.

On the 14th September, commenced raising the potatoes with the plow, by taking eight or ten drills at a time, and plowing round them, the first furrow turned one side off the two outside drills, the next threw out the middle, the next turned over the other side, the next furrow turned up the space between the drills; thus plowing all the ground thoroughly, and so deep as to turn up a little of the subsoil. Used hoes after the plow, and when all was plowed, harrowed both ways. Then plowed the ground as deep as possible into lands, 2 rods wide. Sowed one rod at a round, and on the 30th of September, sowed 1½ bushels Mediterranean wheat to the acre.

We may let the wheat grow till I tell you of the produce of the potatoe crop; but I cannot tell you this exactly, though I can tell enough to show that a medium

potatoe crop produces more value than a good corn or wheat crop. I sold 350 bushels at 25 to 39 cents per bushel—$92.07. Kept 101 bushels of the middle sized for seed. Gave the small ones to the cows, and supplied a family of thirteen persons eleven months, besides a man half of the time, and four or five hands a month in harvest. I may say that potatoes, last season, did not produce half as much, as they took the rot during a very wet time in August. When the weather changed the rot ceased, and none have rotted in the cellar. This is the first appearance of the potatoe disease I have seen, except the two previous years, the end attached to the stem, rotted in a few instances.

In April the wheat appeared too rank, and I turned 100 sheep on it for a few days; still some spots lodged. On the 20th June, reaped it—stacked it when cured. On the 6th September got it thrashed by a machine, and had 101 bushels, weighing nearly 63 pounds per bushel. Sold part at 72 cents per bushel.

You will observe the number of plowing this piece of ground got. From conversing with an Englishman, and reading the Commissioner of Patents' Report for 1847, I find that the English and Germans, generally plow the ground twice at least, before sowing wheat.

The three acres eighty-nine rods, was clover and timothy sod also, and was manured in the winter of 1845 and 1846, with 80 two-horse wagon loads of barn-yard manure, plowed deep and harrowed, and planted in corn.—The cultivator was run four times through the corn, but the plow never. I think it produced 60 bushels to the acre. I did not measure it, but I measured another field the same season. The spring of 1847, sowed it with barley, and it produced only seventeen bushels to the acre, and never got more than this of spring barley to the acre. After harvest, I scraped up all the manure I could get, and scattered it over the stubble, plowed it down, and on the 11 September sowed six bushels of what is called red chaff wheat, on the furrow, and harrowed it both ways. Reaped on the 22d June, got it thrashed by a machine, on the 6th September, and had 84 bushels bright plump wheat rather over 63 lbs. per bushel.

I delayed forwarding this, till I had got out some barley, the produce of three acres and 157 rods, on which I sowed 11 bushels, or 2¾ bushels to the acre, which is half a bushel more than I ever sowed before. It was highly manured in the Spring of 1847, and planted in corn and pumpkins, and brought about 60 bushels corn to the acre, and an immense quantity of pumpkins. The produce is 70 struck bushels, weighing rather less than 48 lbs. per bushel, which is the legal weight of barley in Indiana. In 1847, I sowed eight bushels on three acres eighty-nine rods, or about 2½ bushels to the acre, and had 61½ bushels, weighing 49 pounds per bushel—each producing about 17 or 18 bushels per acre. In 1846, I sowed 11 bushels on 5¼ acres, or two bushels to the acre, and had but 77 bushels, or 14 bushels per acre. Part of this land was rather flat and wet, and I suppose all my land is too heavy for barley—it bakes very hard after rain. John C. Craig. *Madison, Ind., January* 16, 1849.

[*Albany Cultivator.*

Cheese Making in Ashtabula County.

The Conneaut Reporter gives the following account of the growth and extent of the business of cheese making in Ashtabula county. Similar statements might be made with regard to many other counties of the Western Reserve:

We have been "rusticating" among the good people of our county for a few days past, and we may remark with correctness that among the many improvements, there are none which attract the attention of a casual observer, more than those introduced by the "tillers of the soil." The cold and backward spring has retarded the operations of the farmer materially, yet the fall and early spring grains never looked more promising. For a number of years, the attention of our farmers, in a majority of the townships, has been directed to grazing and in multiplying the products of our dairies. Grass looks fine, and there will undoubtedly be a larger crop than has ever before been secured; this is rendered essential by the large increase and growing demand for cheese and butter.—Where a few years ago two or three cows only were kept, the same occupants now number their 40, 50 and 60 cows, and at this time there is an increase of quite one-half the number over last year. No county in the state possesses soil better adapted to grazing, or for dairying purposes, and this source of wealth to our people is but just beginning, comparatively, to arrest their attention. While in many sections a large business in making cheese has been carried on for years, the greater part of our farmers have but little experience in this branch of agricultural wealth, for it is doing more toward developing the resources of the natural soil, and increasing the facilities of its occupants than any other enterprise. Noted for industry and enterprise as our people have been for years, their stock and dairy products have invariably held a high rank in the foreign markets, and with experience and the recent improvements they are now capable of competing with any other section of this country.—The fair remunerating prices which their dairy products have commanded for a few years past, and the credit sustained abroad for superior excellence, has instituted a new system of operations, which at no distant period must control this business. We have reference to the "cheese factories" as they are termed, two only of which have been established in our county. One in Wayne, and the other in Richmond, located in the very midst of our heavy diaries, and for the information of our readers we will notice some of the facilities they afford.

C. C. Wick, Esq., of Wayne, one of our most enterprising and business men, has recently erected his buildings and put in operation his "dairy," for the manufacture of cheese. He commands the product of about 1,000 cows, owned in that and adjacent townships, and employs men and teams who every morning take prescribed routes varying from five to ten miles each, and gather the "curds," which are neatly sacked by the dairymen and then brought to the factory, where the process of "cheese making" is completed.

This furnishes employ for a large number of men and women, and by the aid of recent improvements and machinery much of the labor requisite is rendered light, more convenient and simple than the usual mode. He had last week about 3,000 cheese on hand, made within about thirty days, and for beauty and fine flavor they are not to be excelled. The weight of "curd," daily received, amounts, in the aggregate, to some 3,500 lbs., and the number of cheese made daily about 75, varying somewhat as regards size. They are put up in sacks and intended for the English, West India and California trades, and vary from 15 to 35 lbs.—the former, we believe, are intended exclusively for the California market. Wayne has long held a reputation for producing cheese equal to any other township, and friend Wick intends that the products of *his* dairy shall bear the impress of being equal, if not superior, to any that have been sent from this country. In addition to this there are many large and fine dairies among the farmers.

At Richmond, Merriman Barber, Esq., has another "factory," and situated so as to command the dairies of that town, Dorset, Andover and a portion of Cherry Valley. He receives the products of about the same number of cows, and makes about the same weight of cheese daily, and carried on in the same manner of Wicks', but his cheese are more uniform in size, averaging about 26 or 27 lbs. each,—are put up in the best possible manner, and will command the highest rates in the home or foreign market.

By the adoption of this system it is made advantageous to the farmers, as they contract in the spring for their "curds" which continues for the season, and are thus enabled to estimate, very nearly, their amount of resources, without reference to a fluctuating market.—The prices paid for curds the present season is 3¼ cents per pound; deducting therefrom the expense of teams for gathering, who receive a stipulated sum.

From these gentlemen we have solicited some statistics relative to this business, for the information of our readers, and we hope soon to have the pleasure of laying it before them; as no branch of business requires more attention or information to bring it to the greatest perfection.

What shall be done to Improve Agriculture!

This is a question of great interest to every practical farmer in our country; and an answer to it, if it can be given, will confer unspeakable benefits to the agricultural interest. The subject is one, I am aware, that opens a wide field for investigation; and I do not propose to give an answer that will cover the whole ground. If I can aid, however, in answering the question, so as to lead farmers who are desirous of information, to make vigorous efforts to advance this all important interest, I shall be satisfied. Let me then say, that the farmer who would improve, must devote himself *entirely to his vocation*—rising early and taking the morning air, and vigorously devoting his powers to the work before him. In the preparation of his lands for crops, he must not fail to have it in the best possible condition; thoroughly pulverised, so that each kernel of grain may have a genial soil prepared for its reception, from which it may in due time spring forth to gladden the heart of the farmer. Let him not neglect this. The great superiority of the farmers of England and the Continent, consists in their careful attention to the preparation of the ground for their various crops; in many instances, on the Continent particularly, their lands having the appearance of a finely cultivated garden bed.

Another indispensable requisite is, *drain thoroughly* wherever needed. Not only is it necessary to drain wet and marshy spots of land, but wherever, from the nature of the soil, water stands beneath the surface, so as to render the land cold and sour, so as to prove injurious to the growth of plants, nothing but judicious draining will render it suited to production of crops in all their vigor and healthfulness. Let no farmer then, fail to give attention to draining, wherever, either from surface-water, or water retained from a retentive sub-soil, his land is in a condition unfavorable to the production of a first rate crop. Bear in mind, also, that in many instances, grass lands need draining as much as those designed for grain. Often the lands which are appropriated to grazing, are, by a superabundance of water, rendered almost useless; the grasses are coarse, inferior in quality, give a bad flavor to cheese and butter, and render it impossible to manufacture either, that will command the best price in market.

Another important matter for the farmer is, the *preparation and use of manure*. Grain needs feeding as well as the animals; of this there can be no question. Let then the attention of the farmer be directed to securing from every thing that can be collected, an increase to the manure of the farm. Let him bear in mind, that weeds, muck, or the deposits of swamps, are all valuable to be mixed with the straw and litter of the farm; and let him also preserve the liquid manure from his cattle from waste; on many crops, the application of this, has produced astonishing results; but it should ever be preserved and mixed with the solid excrements of the animals, and will add greatly to the fertilizing qualities of the manure. If necessary, and every good farmer will ascertain this, apply lime to your land where it has been exhausted by your crops; and above all ascertain the analysis of the grains you cultivate, and when you have ascertained the quantity of fertilizing materials that have been taken off with the crop, be sure to return it again in the shape of the proer manures; if you do not do this, your land will become exhausted and your farming unprofitable. Don't neglect this if you would succeed. Here lies one great difficulty with American farming—a want of knowledge of the materials taken off with the crop, and a neglect to return carefully to the soil, in the way of suitable manures, the fertilizing properties required to enable the land to sustain the crops to be grown. Chemistry will tell you, what are the constituent properties of your grain: what of your various manures: and when known, every farmer may then understandingly manage his farm, and preserve and even increase its fertility. This cannot too strongly be urged upon the farmer; and upon a careful and enlightend attention to these suggestions, it cannot, I think, be doubted, that improvement, such as would be abundantly satisfactory, would be the result.

In connection with the proper manuring of the land, let me call attention to its *cleanly cultivation*. Weeds will grow, and if not eradicated, the nutriment which the grain should receive, will be divided between the grain and the weeds. How little attention it would seem, from observing the crops in different portions of our country, is given to this matter. Many a field of corn can be found, where the weeds are to be seen as far as the field can be observed; and when the corn is harvested, astonishment is manifested because only twenty bushels of corn are obtained to the acre, while a neighbor has secured fifty bushels. The difference has arisen, in part, from the attention given by the latter, to the extermination of every thing that could prejudice his crop. What is true of this crop, is applicable, more or less, to every other; and no farmer can be eventually successful, who does not thoroughly and systematically cleanse his lands. You cannot afford to grow weeds and grain on the same field.—The land will not reward you for so doing. It may, indeed, give you an abundant crop of the former, but of the latter the return will be most unsatisfactory.

There are other suggestions which I may give at another time; but let me ask the reader, are not these worthy of your attentive observance if you are a farmer?—Would not every farmer be benefitted materially by giving heed to them? Is there a man who will say, it is no consequence whether I attend to these suggestions or not; I can succeed as well as others who have never been so particular in their farming operations. But let me ask you, what has become of these farmers? Gone to other regions, after exhausting their soil; their crops so diminished as no longer to pay the expense of cultivation; and will you by pursuing a similar course, render it necessary for you to follow them? I leave the question for you to answer.—*Wool Grower*. SENEX.

NOVEL PRINTING PRESS.—Dr. J. F. Wright, of Greenfield, Highland county, Ohio, has shown the editor of the Cincinnati Gazette a model of a machine, of his own invention, for which he is about to procure a patent, the purpose of which is to print the names of subscribers on newspapers. It is an ingenious contrivance, indeed, whereby he says he can direct about 1,800 papers an hour, and with perfect accuracy. The motion of the machine causes a series of tubes, connected together somewhat like an endless chain and wherein are set the types forming the name and direction, to pass through and give the impression, and this endless chain is so contrived that when the series of tubes one, two, or any greater number, containing the names for any post office, has passed and given their impressions, the receiver of the papers is instantly reversed in position so as to throw the next batch of papers for another office across the preceding batch, and so on ad infinitum. It requires only the attendance of a boy to put on the papers, if attached to a steam engine, or, if not, an additional hand to turn the crank.—*Maysville Eagle*.

SCARE CROWS.—We have for several years used sheets of bright tin, tied to slanting posts ten or twelve feet in length. Six or eight sheets are sufficient for an acre, and they have proved to be the cheapest and best scare crows we have used. The motion given the sheets by the wind causes a brilliant reflection of light at every turn, when the sun shines, and no crow has ever troubled our cornfields while the tins remained suspended upon the poles. —*Boston Cultivator*.

TO DRIVE AWAY RATS.—Mr. Charles Pierce, of Milton, pounded up potash and strewed it around their holes,

and rubbed some on the sides of the boards and under parts where they came through. The next night he heard squeaking among them, which he supposed was from the caustic nature of the potash which got among their hair and on their bare feet. They disappeared, and he has not been troubled with them since that time, which was nearly a year ago.—*Boston Cultivator.*

OHIO CULTIVATOR.

COLUMBUS, OHIO, JULY 1, 1849.

To Readers and Correspondents.—Owing to sickness amongst the printers, and several having left town, we find some difficulty in getting our paper issued with perfect regularity just now. We trust our friends will excuse us, if we fall a few days behind for one or two numbers.

Two or three plans of barns are on hand, waiting the return of our engraver. Some other matters arrived to late for this number. The hot weather and imperfect state of our health, must excuse us from much mental or physical labor these days.

Remarks on long wooled sheep in our next.

The Cholera.—Owing probably to the extreme hot and moist weather, this disease has prevailed with increased fatality for a week or two past in Cincinnati and other western cities; and even small towns and villages have in some cases been severely visited. In this city, with a population of about 15,000, there have been 10 or 12 deaths. Few new cases had occurred for the last two or three days previous to our paper going to press.

Ohio State Fair Postponed.

A meeting of the Ohio State Board of Agriculture was held at Columbus, on the 22d ult. *Present,* Messrs. Trimble, Watts, Sullivant, Medary and Bateham. The President stated that the principal object of the meeting was to consider upon the expediency of postponing until next year, the proposed Fair to be held at Cincinnati, on account of the prevalence of cholera in that city, and various other places in Ohio, and adjoining States. A letter was read from Mr. Lapham, giving his opinion and that of other gentlemen in Cincinnati, in favor of postponement; and after full discussion it was, on motion, *resolved,* that the Fair be postponed till next year.

Also, *resolved,* that a delegation from the Board be appointed to attend the Fair of the New York State Agricultural Society, to be held in Syracuse on the 11th, 12th and 13th. of Sept. next. The following members were appointed delegates for the purpose: Ex-Governor Allen Trimble, Dr A. Watts, M. L. Sullivant, Samuel Medary, J. M. Edwards, M. B. Bateham.

The Fruit Convention which it was announced would be held in Cincinnati during the days of the State Fair in September, will perhaps be held at a somewhat later period. There has been no time for correspondence on this point since the State Fair was postponed; and owing to the uncertainty as to the prospective condition of the health of the country, it is difficult to decide at present as to what time will be most expedient.

Fair at Cleveland.—We observe by Cleveland papers, that it is proposed to hold an Agricultural Fair in that city in September next. If the farmers and friends of Agriculture in Cuyahoga county, would act like men who understand and appreciate their advantages, they could have such a Fair as would do honor to themselves and to the State. Why not fix the time, say a week late than the New York show, then go ahead with the arrangements resolved that it shall sudceed? All that is is wanting is a little effort on the part of a few good men.

Injury to the Wheat Crop.

The weather for the past ten days has been extremely warm, with frequent rains and fogs—very unfavorable for the wheat harvesting which has been going on in this region whenever the weather would permit, for a week past. The *rust* has done great injury to all the wheat in central and southern Ohio, excepting the earliest fields, and on high rolling ground. The wheat fly, too, has been very destructive in this and several adjoining counties—perhaps also in other parts of the State. Our letters from Licking county, the Muskingum valley, and also westward, speak in gloomy terms of the injury from the rust. If the more northern counties have not escaped this evil, the wheat crop of Ohio will fall immensely short of what was anticipated only two weeks since. For an account of the wheat fly, see article in another column.

The frequent rains and hot weather will probably cause the potatoe rot to appear again; though it is perhapse too early in the season for much harm to be done.

The Rose Bugs are very abundant and destructive in gardens and fruit yards around Cleveland; also at Zanesville, Newark, &c. Clay soils are generally exempt from them.

Thrashing Machine.—Our friend P. will find the information he desires in our advertising columns. We suppose Wheeler's machine is what he wants. We know of none smaller or cheaper that can be recommended.

Correction in Ag. Report.—Our friend H. N. Gillett, of Lawrence county, wishes us to notice the following errors in his communications in the late report of the Board of Agriculture:—

On p. 76, the article "cheese" should be omitted in the list of exports.

Same page, at bottom, under *Remarks,* it should read, The hill portion *when well planted* with orchards of best varieties of fruit will yield five barrels per tree, &c.

In the report on Fruit, p. 206, for "red cedar," read *cedar;* as the latter fruit is subject to bitter rot, while the former is not.

Page's Portable Saw Mill.---Inquiry.

Mr. Batahan—I see in the Cultivator of the 15th, a notice of Page's Portable Saw Mill, in connection with Plank roads; also, of Wheelers Horse Power Thrasher, Saw Mill, &c. My object in wrtting is to ascertain through your paper or otherwise, the particulars about those machines—especially Page's Saw Mill; what it is capable of doing, and how large logs can be sawen with it, in fact all about it. I suppose some of your southern correspondents can answer these questions; and some others have tested or witnessed the operation of the Wheeler Mill. Respectfully, &c.,

A. WHITE.

Section Ten, O., June, 1849.

(Answer in our next—Ed.

Inquiries---Elder-bushes---Wind-sucker.

Mr. Bateham—I write you by way of inquiry. I have letely come into possession of a small farm, which is considerably over run with elders, which, from the nature of their wide spread roots, it appears almost useless to undertake to destroy them by grubbing; I therfeore inquire of your numerous correspondents, if any of them know of a more speedy or succesrful way of destroying elders, than by grubbing.

I will also inquire of the correspondents of the Cultivator, if any of them know how to cure a colt or young horse from the practice of what is called "wind-sucker."

E. K.

Meeting of the State Teachers' Association.

In consequence of the existing state of health in several of the cities and towns of this part of the State, it has been thought advisable to postpone the meeting of this Association, announced for the 3d and 4th of July next. till some future time.

The meeting will most probably be attended in Springfield, in the latter part of September, or during the month of October next. Due notice of the time and of the arrangements will be given, in the educational and other papers of the State.

A. D. LORD,

Chairman of the Executive Committee.

Columbus, June 25, 1849.

Disease of Cattle.

Editor of the Ohio Cultivator—I want to ask some questions through your paper, respecting disease of cattle. I had two fine cows that died last summer by a disease that I am thoroughly unacquainted with, and if any light could be thrown upon it by any of your intelligent and practical correspondents, I should fell much gratified by being fusnished with it.

Both cows gave milk through the winter, and were stabled and fed well, so that they were fat in the spring, when turned in clover. They were both turned dry six weeks before calving, and calved about the 10th of August last. The following morning, they were driven from the field to the house with their calves, and to all appearances were well, and eat hearty. They were turned into short pasture, and about two o'clock, one of them was so weak as not to be able to get up, her horns were hollow, and her pulse beat high. After boring her horns, I put salt and vinegar in them and spirits of turpentine, around the roots. She remained in great agony till next morning and died. Tne other one was taken ill in three hours after I found the first one, and I bored her horns and treated her precisely as I did the first, she also died in much agony, in about three hours after the other.

I thought at first, that the disease was inflamation on the brain; on opening them, they did not appear to be swollen in the body; they both evidently were attacked with the same disease. I lost a cow two years before, about the same period on the year, she was quite fat, and the day after calving was taken sick and died in twenty-four hours. They all appeared to suffer more severely than I ever saw cattle endure before. In the whole of the above cases, pains were taken to milk them thoroughly dry, directly after calving.

If there is any preventive or cure for the above disease, those of your readers who have had experience in treating it, would confer a favor upon me, by communicating the same through the columns of your paper at an early period.

JOHN CALHOUN.

Dayton, Ohio, 1849.

The Rival Fruit Conventions.

To the Fruit Growers and Nurserymen of Ohio:—

Gentlemen.—A number of us have been appointed committee-men of the two Pomological Conventions, to be held in New York, in September and October next, and have been requested to report to those conventions the result of our observations and experience.

Those bodies has become rivals, and it appears to me impossible for us to become members of the one or the other, without participating in their controversies, and introducing them into our own State Conventions. I therefore decline acting as a committee-man of the North American Pomological Convention, and earnestly recommend and advise each and all of you, to decline acting as committee-men, for that or the American Congress of Fruit-growers.

Let us make another united effort in the cause in which we are engaged, and endeavor to make the proceeding of our next State Convention, creditable to ourselves, and the great State of Ohio.

Yours, respectfully,

S. A. BAKER.

McConnelsville, June 20, 1849.

The Locusts---Injury to Fruit Trees.

Mr. Bateham.—As was predicted by you in the Ohio Cultivator one year ago, our neighborhood and the surrounding country is now swarming with locusts. The woods, orchards and groves are daily resounding with their harsh rattling sound. It is only about a week since they made their appearance in this vicinity; they seem to come from a southern direction They alight on the trees, shrubs and bushes, and soon commence boring and depositing their eggs in the branches. Great injury is done to the fruit trees in this way. I planted a new orchard last spring; the trees flourished finely till within two or three days; now the leaves begin to wilt and branches die where injured by the locusts. From present appearances, I shall not have a live tree left. My neighbors are complaining of the same mischief. Can any thing be done to save our trees? Yours, &c.,

SETH HOAGLAND.

Mercer, Pa., June 21, 1949.

Remarks.—When a young orchard is attacked by the locusts, and it is evident that all the branches will be bored, we would immediately cut off and burn all the branches, so as to leave the trees *entirely destitute of leaves.* The locusts will then leave the trees; and in a short time new shoots and leaves will appear. But if the injured branches with the dead and dying leaves are sufferred to remain, the vitality of the tree is much exhausted by evaporation, and new shoots will not so soon appear.—Then, too, by destroying the eggs of the insects throughout the orchard, they will not be so likely to appear on the trees at the next period of their advent—17 years hence.

In Ohio we do not learn that the locusts have any where

appeared in large numbers this year. In Columbiana and Carroll counties, a few are to be seen. One of our exchange paper says:

"The locusts have appeared in limited numbers in Carroll county this year. Three years ago they appeared in great numbers—consequently those now appearing are not the 17 year locusts."

This is not sound logic; for if we suppose that two broods or families exist at the same time in one locality, one of them may appear above ground in 1829 and again in 1846; and the other in 1832 and again in 1849, and all conform strictly to the seventeen year rule. This is the true explanation of the difficulty which some minds have in accounting for the appearance of these insects oftener than once in seventeen years.

Value of Chemical Analyses.

EFFECTS OF DIFFERENT SOILS ON THE QUALITY OF WHEAT AND FLOUR.

Mr. Bateham:—Although I have but little leisure for thinking upon agricultural subjects, and much less for writing or reading, yet I feel impelled to return my thanks for publishing the report of the analyses of grain and flour contained in your last paper. It is the very kind of information which we very much need. Both the farmer and miller should understand it. It cannot be too fully expressed and too clearly explained.

In Ohio agriculture such knowledge is a great desideratum. The traveler through different parts of the state will notice a great variety of wheat bread, even from good bakers and good millers. *The reason of this difference should be understood.* More thorough analyses, with correct information as to soil, variety of grain and and the influence of seasons, may, and I trust will, solve this problem. I have observed a difference in wheat bread, in the different geological divisions of our state—the *coal*, the *silicious* and the *calcareous*. In some sections of the state I have thought there was a deficiency of silicates, and in others of alkali, to produce good wheat. This however may be merely a prejudice. The skilful chemist must determine this important question; for it is one to the farmer of gravest importance. Although it might be thought preposterous to manure our wheat-fields with sand, yet wherever that element is deficient it is as essential to a crop as any other manure that ever has been applied.

I am inclined to think that our best wheat lands are upon the sandstone formation, covered with diluvium, which always contains a sufficient compound of other mineral ingredients for a good crop. But I have not time to enlarge—I merely suggest.

Our crops in Licking county are very promising.—Wheat crop will be large. Summer crops "stand so thick that the valleys laugh and sing."

Peaches will be abundant—grapes are promising—apples will be scarce. Ever yours, I. DILLE.

Newark, O., *June* 18, 1849.

Remarks.—While so large a portion of the farmers in Ohio and elsewhere appear wholly unable to discover the utility of profound scientific research in matters pertaining to agriculture, it is gratifying to find that some men who are directly engaged in agricultural pursuits, possess sufficient scientific knowledge to understand and appreciate its practical value. We trust the time will come when, by means of improved systems of education, a large majority of the farmers of this favored country will be of this class. Then the profession of agriculture will take its proper rank as a SCIENCE as well as an art; and the most gifted and cultivated minds will everywhere be found engaged in the study and practice of this most noble and honorable of all human pursuits.

Premium Essays.

The letter of our friend Dille has suggested to us the importance of calling the attention of our scientific friends to the two premiums of *fifty dollars* each, offered last winter by the Ohio State Board of Agriculture, to be awarded at the next annual meeting (in December) for the following essays:

1. For the best essay on the character, composition and [means of] improvement of the soils of Ohio—a premium of fifty dollars. (This is expected to embrace chemical analyses of several of the leading kinds of farm soils.)

2. For the best essay on the relation that the agricultural manufacturing and mechanical interests sustain to each other. (This may be competed for by persons not residents of Ohio. The other essay would seem to offer a better chance for our own professors. We hope some of them will be on the alert.)

Clermont County Agricultural Society.

Pursuant to the adjournment of a meeting held in Amelia, for the purpose of getting up a county Agricultural Society,—the friends of Agricultural improvement met in Batavia, at the Court House, June 9, 1849, at 2 o'clock, P. M.

The meeting organized by electing Andrew Coombs, President, and John Hancock, Secretary.

The constitution of the Clermont County Agricultural Society, as presented to the Amelia meeting, and published in the county papers, was read, and on motion, was adopted.

The number of names required by law, having been subscribed to the constitution, the Society proceeded to organize permanently, by electing the following officers, to serve for one year, viz:

President, Thomas L. Shields.
Vice President, Andrew Coombs.
Treasurer, Philip B. Swing.
Secretary, John Hancock.
Managers, C. B. Huber, Samuel Cordry, Joseph Shaw, Aaron Fagins, Samuel R. S. West.

After some remarks of Judge Fishback, on the importance of sustaining the Ohio Cultivator, he called for subscribers, when a goodly number of names was obtained.

It was resolved to publish these proceedings in the county papers and the Ohio Cultivator.

On motion, the meeting adjourned,

ANDREW COOMBS, Pres't.

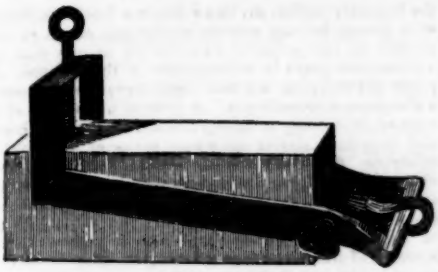
John Hancock, Sec't.

Athens County.—A letter from this county (not intended for publication) says:—

"The time will come when the hills of old Athens will not be numbered among the least of those tributaries to your laudable agricultural exertions in Ohio. The vast mineral resources of the county, consisting of Salt, Coal, Iron and Lime, (not yet wrought) will bring and are bringing in a large number of miners and manufacturers. This population has to be fed, insuring to the farmer here a home market, and good prices for all the products of the farm.

A ready market and fair prices, must ultimately lead to increase exertions on the part of the farmer. At this particular juncture, in steps the Ohio Cultivator, and tells him how to do it."

Pike County.—We learn that an Agricultural Society has recently been organized in Beaver Valley, Pike county.



Evans' Patent Plow Clevis.

Important to Farmers and Plow Makers.

The above clevis was briefly noticed in our columns about one year ago. Since which time, Mr. Evans, the inventor, has sold his entire interest in the invention to Joseph Dugdale, of Selma, Clark county, who is prepared to sell rights to plow makers and others, on reasonable terms; also, clevises to farmers and others, who desire to test them. A few of these clevises are on hand at the office of this paper, and will be sold very low, for the sake of having them fairly tried. It is confidently believed, that this clevis will be found superior to all others in use, for ease and perfection of management, combined with cheapness and durability.

We advise farmers and especially plow makers, to give their attention to this matter, and make trial of the new clevis.

One correspondent writes us, that in his vicinity where it has been tried, farmers prefer giving one dollar extra for plows having on this clevis.

Osage Orange from Cuttings.

Editor Ohio Cultivator:—I see that you answer in the negative, an inquiry "whether the osage orange can be raised from cuttings?" in your paper of the 15th ult. This being your *opinion*, perhaps I can answer the question more satifactorily from actual results.

About fifteen years since, I procured a single tree from Philadelphia. I have multiplied this to many hundreds, from *cuttings only*, and now have a large number of shade trees with bodies 10 to 12 inches in diameter which I have raised in this way. Having only the female variety, the fruit and seed of my trees do not perfect themselves, but drop before they are mature. In raising the tree from cuttings, I plant them in the fall or winter; cut them off smooth near a joint, and a foot or more in length. I have always raised them in a common sandy soil, but do not know but other soils would do as well. I generally get one third to one half of my cuttings to grow. I think that wood which is somewhat hardened, succeeds better than water sprouts of the last year's growth. The cuttings root only from the end—therefore great caution is necessary in transplanting them, as the roots are very easily broken off at their junction with the body. I have also raised numbers by cutting the roots of the trees, which may be done by finding those near the surface, and cutting them from the body which occasions them to throw up sprouts from the detached roots. A root may be cut in several pieces, and it will grow from each place where it is cut. The tree I do not think is disposed to sucker at all from the roots, except when forced in this way.

In my opinion, the osage orange is a most valuable tree for many purposes, and should be extensively raised. It grows most luxuriantly here, but, as yet, is little known and cultivated. Respectfully yours,

Macon, Georgia, June 1, 1849. S. Rose.

Remark.—We have tried the plan of raising osage orange plants from pieces of the root, but not with good success; only about one-third of the pieces sprouted.—However, we attribute this to the clayey character of our soil; as we have seen much better results on sandy soil.—Ed.

On Education.

Of the various subjects that claim attention at the hands of those whose business it is to mould public opinion, through that powerful engine the press, none will compare in importance, to the diffusion of correct opinions in relation to the subject of popular education Almost every man who has given the matter serious consideration, is convinced that the present course of instruction, is ill calculated to develop the physical and menta energies and powers of the youthful aspirant after knowledge. A thousand theories have been sent forth to the world, each claiming some point of excellence over others that preceeded them, in the art of "training the young ideas how to shoot," but to our mind, the most radical defect in the present system of education, may be traced to the simple cause, that sufficient pains are not taken by the instructors in selecting the wheat from the chaff, so as to present, orally if possible, the true philosophy of the branches of learning taught, in a simple and comprehensible manner to the mind of the pupil. An education to be useful, should be as practical as possible. Whilst the mind of the pupil is being trained in the principles of those sciences, that would be of service to him in the various avocations of life, through which he may move, care should be taken to make every branch of study as pleasing and intelligible, as the circumstances of the case, and the capacity of the instructor are capable of affording. To succeed to the fullest extent in this, the teacher must be thoroughly versed in the theory as well as the practice of those branches of education taught, so as to deliver familiar lectures, adapted to the capacity of the scholars under charge. Those conversational lectures, interspersed with pertinent enquiries in relation to the different tangible points, that present themselves to the views of the pupils, would if properly digested and pleasingly delivered, soon dispel that routine of drudgery we so frequently see exhibited by those who may be truly styled *book worms*.

The writer of the following article, has a clear and correct view of the importance of the youth of our land becoming acquainted with the laws which govern and regulate the physical man; but as correct as those opinions are, it will require a much more efficient system of preparing teachers for the district schools, so as to enable them to lecture intelligibly upon the science of animal physiology, than any at present established. The suggestion, however, is worthy of the attention of all who take an interest in the progress of popular education.

It is a lamentable fact that the human race, especially in the most fertile regions of country, is gradually undergoing physical declension. The cause may obviously be charged to idleness, indulgence, want of out-door exercise, and the present unnatural system of popular education. The business of agriculture, as much requires that those who follow it as a profession, should be taught the principles that govern and influence its movements, as does the physician require to have a knowledge of anatomy, or a theologian an acquaintance with the principles of christianity as expounded in his bible. Of all the

pursuits in which intellectual man is engaged, none will afford a wider scope for useful mental culture, than that of husbandry. In fact to be an intelligent farmer in the broad sense of the term, it is necessary that the individual should have a knowledge of nearly the whole of the practical sciences, so as to be able to trace correctly the causes that produce results in the various operations and departments of agriculture. This knowledge is not actually necessary to make a man a successful farmer; but those who are fortunate enough to have acquired such a stock of practical knowledge will find it to be more valuable to them, in proportion to the time, labor and money it costs him to acquire it, than if the same amount had been expended in increasing their broad acres.

We have extended these prefatory remarks to a much greater length than intended when we sat down to introduce the accompanied communication to the favorable consideration of our readers. No apology, however, need scarcely be urged, in occupying a few columns of each number of the Cultivator, with so important a subject as that of popular education; and in the next number we hope to be able to publish some useful hints upon the subject of agricultural education, as applicable to the circumstances of the farmers of Ohio.

Education.—It has been said "that he who spits against the wind, spits in his own face," and "that he who makes any innovations upon the theories or customs of the age in which he lives, runs the risk of losing his life, reputation and estate." Yet, notwithstanding the truth of the above propositions, the spirit of the age in which we live is *excelsior*, (more elivated) and it is the duty of every one to perform his part, however humble, in bringing about a reformation from present evils, or to assist in making any improvements which may be necessary to improve the condition of the society in which he lives.

In view of the last proposition we propose to offer a few objections to our present common school system.—We would not be understood, however, as wishing to detract anything from it; nor as desiring to pluck a leaf from the wreath that so justly encircles the brow of those who have laid the foundation and reared the grand edifice of our great educational system, which honors us as a nation, and of which we have abundant reason to be proud; and for which we should feel thankful to those who have made such an improvement upon that which was first begun. Still there is abundant room for improvement. For it was long since justly remarked "that of all human sciences, that concerning man is certainly the most worthy of man, and the most necessary part of knowledge;" and that "no study is more important than that which introduces us to a knowledge of ourselves. Then, when we compare our common school system with the above declaration, we find there are some important discrepancies in the former. Take for example the branches recognized by our school law as being indispensable in teaching a common school, viz: Reading writing and arithmetic—not one of which gives the student a single lesson on the structure of his own body, or the laws which govern his organization.

It is true that the branches above named, which are recognized by our school law as being so important that a man is not considered qualified to teach a common school who does not understand them; are very interesting and important. So are many other branches, as Grammar, Geography, Philosophy, Rhetoric, Chemistry, Astronomy, Music, French, Latin, Greek, &c., &c.; but the anatomical structure of the human body, and the laws which govern its healthy action, are branches of learning far more important than any others that we can study in the time necessary to study these.

A person may be a complete English, Latin or Greek scholar; he may, with the mind of a Newton, be able to measure the distance to, and tell the revolutions of, all the heavenly bodies; or, like a Boyle, a Locke, a Siliman or a Liebig, he may analize matter and assign to each particle its real property, and after all he may sink into a premature grave in consequence of the violation of a single physiological law that might have been learned in a few days, or even hours. A general knowledge of the laws of physiology is indispensable to insure our health and happiness, during the whole period of our physical existence. And this knowledge cannot be acquired without some study, and there is no place more convenient, or more proper for such study, than in our common schools. A knowledge of anatomy and physiology can be applied to our physical and mental welfare at every moment of life, and hence is among the most important, and should certainly be among the first branches attended to in our study of the sciences. For if health of body and mind is the greatest earthly blessing, (and this no one will dispute,) it follows, of course, that a knowledge of the means of preserving these, and of transmitting them to our offspring, is a matter of vital importance to us all, and should, undoubtedly be attended to. For what is the wealth of an Astor or the fame of a Washington to an invalid who is wrecked with pain and scorched with fever, or who is withering under the influence of some hereditary taint, the natural result of the violation of some physiological law? They are as but scorpion lashes to hurry his tottering frame into eternity, as many can this day testify. Wealth and fame, with all the artificial advantages of life, may shield the invalid from the inclemencies of the weather, but the cares and anxieties which they cause, will only assist in goading him out of existence, and make him the more reluctant to give up the things of time and change his state of existence.

More anon. In hasts, C****.

Fincastle, *Brown county, O.*, 1849.

Salting Hay.

We have often cautioned farmers against salting their hay too profusely. No more salt should be put on hay, than animals would voluntarily consume while eating it if the salt was given to them separately. We are astonished to find, in a valuable agricultural journal, advice to add ten or twenty quarts of salt to a ton of clover hay, which will aid in preserving it, if rather green.

The largest quantity—twenty quarts to the ton—would be about twice the amount given to a horse in a year, at the usual allowance of an ounce per day, or half a pound per week. Four quarts of salt to a ton of hay, is as much as animals commonly consume when they have their own choice. Hay is greatly injured by the use of large quantities of salt to save it, when put into the mow only partially cured; and in some cases, diseases and death among stock have been the consequences of a too liberal use of salt as a preservative.

How would a man like butter with four ounces of salt to the pound, in order to save it without the trouble of working out the buttermilk? We have been particular on this subject, as dealers inform us that much hay brought to this market is injured by over-salting, for the purpose of saving it when housed too green.—*N. E. Far.*

Agricultural Fair in Michigan.—The State of Michigan, following the example of New York, has organized a State Agricultural Society, and the first Fair is to be held in Detroit on the 26th and 27th of September next, provided a sufficient sum of money shall be raised there to defray the local expences.

The Cattle Sale which recently took place on the farm of Gen. Vail, Esq., of Troy, N. Y., amounted to $2,150. As high as $50 were paid for calves, $130 for heifers, and $300 was refused for one cow. They were of selected stocks.—*Alb. Atlas.*

The right depth and width of the furrow; the right kind and application of the seed; the right times of hoeing, and the right time of harvesting; are all matters depending upon the skill and judgment of the farmer.

Whittling Shingles.

Give me a piece of your shingle, John Plowhandle, and let me whittle sticks with you a short time. Now good John, sit down on this log beside me. You say you have a good farm—boys and girls—a good wife, and a pleasant home; tell me, then, what you are working so hard for?

To get a good living.

Well, your oxen, and your horses, and hogs get that. But have you no aim or object beyond. You certainly cannot be so stupid as to live for the mere pleasure of animal existence.

You want to provide something for your children.

That is a little better. But, John, do you give them a good education, now? are you giving them all the advantages which your means will allow?

Send them to school winters.

Ah, John! just as I expected. You care more to cultivate your land than the minds of your children. You cultivate your land well because you desire good crops, and you know that will bring them. You feed your cattle well, so that they may mature early. These are only temporary. But the mind—the immortal mind—John, which, if properly cultivated, brings forth fruit through all eternity—which survives worlds, and is a part of immortality—that you neglect for your land—for your hogs, your cattle, and horses.

Why, my dear fellow, that fine horse you rode to town yesterday, would send one of your boys to the Academy for a whole year; and how much good that would do him. How much better he would be prepared to discharge the duties of a citizen, when they devolve upon him.

You don't see the necessity of so much education for a farmer. Never went to any better than a common school in your life.

John, you are an ass; a downright dolt. Why, man, the world is a great deal wiser than when you and I were boys. Then the minister and the lawyer were the fountains of wisdom. They, with the doctor, knew it all.—We consulted them on all occasons. They married us, and made laws for us, and thought for us. But times have changed. The mass begin to think for themselves.—There is, therefore, a greater necessity for a more general and thorough education every where. No farmer or mechanic, should hesitate for a moment, but should strain every nerve to give all his children the very best education in his power. Sow the good seed bountifully, and in due time it will bring forth an abundant harvest of honor to your offspring in your old age.

But you have such a large family.

No matter. If you really try, there will be no trouble; for the boys, if you give them liberty, will get along with moderate assistance; and the girls can get a good, sound, practical education, with but small expense. But educate them; and educate them to be farmers, and farmers' wives. Let them learn a trade if they like, but don't think of allowing them to go into the counting room, or a profession. The farmer's is the only truly independent profession or trade. Don't forget, John, but think and do.—*Wool Grower.*

Receipe for Cure of Cough.—Take of boneset as much as you can grasp in your hand, and two quarts of water; boil it to one quart; add a pint of molasses; let it simmer a few minutes, and then strain and set it by to cool. Take one gill three times a day before eating. It is an excellent remedy. I have several times received great relief by it. M. K. *South Salem, Westchester, N. York.*

To Destroy Cockroaches.—Take and mix up some arsenic with boiled potatoes and sprinkle it about the hearth before going to bed. Be sure and sweep any of the crumbs that might be left early in the morning and burn them up, for fear of accident.—*Sci. Amer.*

HOUSEWIFE'S DEPARTMENT

Afflictive.—Among the deaths from cholera in this city, is one that has caused deep sorrow to the editor of this paper, and to a large circle of friends and relatives in a distant part of the State. Miss Mary A. Young, aged 15, was a favorite cousin of the late Mrs. Bateham, and came to this city one year ago to reside with her and attend school. Having become interested in her studies at the High School, after the death of Mrs Bateham, Mary obtained consent of her mother to remain in the city, and continue her education. She was a bright scholar, and her amiable disposition endeared her to all of her acquaintances. She was temporarily residing in the family of Mrs. S. Clark, who was attacked with the disease on the morning of the same day with herself, (Saturday the 23d inst.,) and both died about noon on the following day.

From the first hour that it was known that Miss Young was attacked, until her eyes closed in death, unremitting attention was devoted to her by Mr. Bateham and one or two ladies, and the best medical aid was procured; but all was unavailing; the disease had progressed too far before the danger was made known—in the short space of eighteen hours the Destroyer had done its work—and Mary's youthful spirit left this world to join the companionship of her friend and cousin in the Spirit Land.

Most deeply do we, and many others in this city, sympathise with the bereaved mother, and the brothers and sisters of the deceased, (residing in Parkman, Geauga county,) and may He who is the husband of the widow, and father of the fatherless, sustain and comfort them under this affliction.

Food and Drinks for the Sick.

As this is a season of the year when more or less of sickness prevails, we have thought that we could not perhaps render better service to our female friends, than by giving a few receipts for cooking or preparing food and drinks for sick persons. Many benevolent families which are blessed with health themselves, may have sick and poor neighbors, for whom it would be a mercy and also a privilege to prepare and send occasionally a nice dish, if they only possessed the requisite knowledge for preparing it. To such we commend the following chapter, with the hope, that when occasion offers, they will not be slow to put in requisition the knowledge it affords. We copy from that true friend of American housewives, *Miss Beecher*:

General Remarks on the Preparation of Articles for the Sick.

Always have every thing you use very sweet and clean, as the sense of taste and smell are very sensitive in sickness. Never cook articles for the sick over a smoke or blaze, as you will thus impart a smoky taste. When the mixture is thick, stir often to prevent burning. Be very careful, in putting in seasoning, not to put in *too much*, as it is easy to add but not to subtract.

The nicest way to flavor with orange or lemon peel, is to rub loaf sugar on the peel till oil is absorbed into it, and then use the sugar to flavor and sweeten. Herbs and spice, when boiled to flavor, should be tied in a rag, as they will not then burn on to the vessel at the edge.

Chicken tea is made by boiling any part of the chic ken and using the broth weak with only a little salt.

Chicken broth is made by boiling a chicken a good deal and skimming very thoroughly and seasoning with salt. A little rice, or peal barley improves it, or a little parsley may be used to flavor it.

Chicken panada is made by pounding some of the meat of boiled chicken in a mortar, with a little broth, and also a little salt and nutmeg. Then pour in a little broth and boil it five minutes. It should be a thick broth.

Milk Porridge.—Make a thin batter with indian meal and wheat flour, a spoonful of each, and pour it into a quart of boiling milk and water, equal portions of each. Salt it to the taste. Boil ten minutes.

Rice Gruel and Oatmeal Gruel.—Make a thin paste of ground rice or Indian meal, and pour into boiling water, or boiling milk and water. Let the rice boil up once, but the corn meal must boil half an honr. Season with salt, sugar and nutmeg. A little cream is a great improvement.

Arrowroot and Tapioca Gruels—Jamaica arrowroot is the best. Make a thin paste, and pour into boiling water, and flavor with sugar, salt and nutmeg. A littte lemon juice improves it.

Tapioca must be soaked in twice the quantity of water over night, then add milk and water, and boil till it is soft. Flavor as above.

Dropped Egg.—Salt some boiling water, and drop in it a raw egg out of the shell, taking care not to break the yolk; take it up as soon as the white is hardened. Dip some toast in hot water, and put salt or butter on to it, and lay the egg on the top.

Herb Drinks,—Balm tea is often much relished by the sick. Sage tea also is good. Balm, sage and sorrel, mixed with sliced lemon, and boiling water poured on, and then sweetened, is a fine drink. Pennyroyal makes a good drink to promote perspiration

Herb drinks must often be renewed, as they grow insipid by standing.

Other Simple Drinks.—Pour boiling water on to tamarinds, or mashed cranberries, or mashed whortleberries, then pour off the water and sweeten it. Add a little wine if allowed.

Toast bread very brown, and put it in cold water, and it is often relished. Pour boiling water on to bread toasted very brown, and boil it a minute, then strain it, and add a little sugar and cream.

Simple Wine Whey.—Mix equal quantities of water, milk and white wine. Warm the milk and water, and then add the wine. Sweeten to the taste.

A great Favorite with Invalids.—Take one third brisk cider and two thirds water, sweeten it, and crumb in toasted bread, or toasted crackers, and grate on nutmeg. Acid jellies will answer for this, when cider cannot be obtained.

Water Gruel.—To two quarts of boiling water, add one gill of Indian meal and a heaped table spoonful of flour, made into a paste and stirred in the water. Let it boil slowly twenty minutes, Salt, sugar, and nutmeg to the taste.

Oatmeal makes a fine gruel in the same way.

Beef Tea.—Broil a pound of tender, juicy beef ten minutes, salt and pepper it, cut it in small pieces, pour on a point of boiling water steep it half an hour, and then pour it off to drink. Another way is slower, but better. Cut the beef in small pieces, fill a junk bottle with them, and keep it five hours in boiling water. Then pour out, and season the juice thus obtained.

Sago for Invalids.—Wash one large spoonful of sago, boil it in a little water, with a pinch of salt and one or two sticks of cinnamon, until it looks clear; then add a pint of milk, boil all well together, and sweeten with loaf sugar.

Rice Jelly.—Make a thin past of two ounces of rice flour, and three ounces of loaf sugar, and boil them in a quart of water till transparent. Flavor with rose, orange, or cinnamon water. It can be made also by boiling whole rice long and slowly. A pinch of salt improves it.

Corn Bread.—We are in the daily habit of eating corn bread made after the following receipe, by our good landlady, Mrs. Norton of Astoria. It is equal to anything we have ever tasted:—To one quart of sour milk add two spoonfuls, well stired in, of pulverized saleratus, two eggs well beaten, one table spoonful of brown sugar, and a piece of butter large as an egg. Salt to suit the taste, and then stir in the meal, making the mixture about as stiff as for pound-cake. Now comes the great secret of its goodness. *Bake quick*—to the color of a rich light brown. Eat it moderately warm, with butter, cheese, honey or sugar-house molasses, as most agreeable to the palate.—*Ameri. Agri.*

To Correct Sourness in Milk, Cream and Bread.—It is not generally known that the sourness of milk and cream may be immediately corrected by the addition of a small quantity of the common carbonate of magnesia, in powder. Half a teaspoonful (about equal to four grains) may be added to a pint of milk or cream, if only slightly sour; a larger quantity in proportion to the degree of sourness.

From two to three grains may be added to every pound of flour to prevent sourness in bread, so injurious to some constitutions.

Carbonate of soda is sometimes employed for the same purpose, but it communicates a very unpleasant flavor to the bread, and, in the case of milk or cream, is worse than the disease.—*Sci. American.*

The Crop of Acorns.

BY MRS. SIGOURNEY.

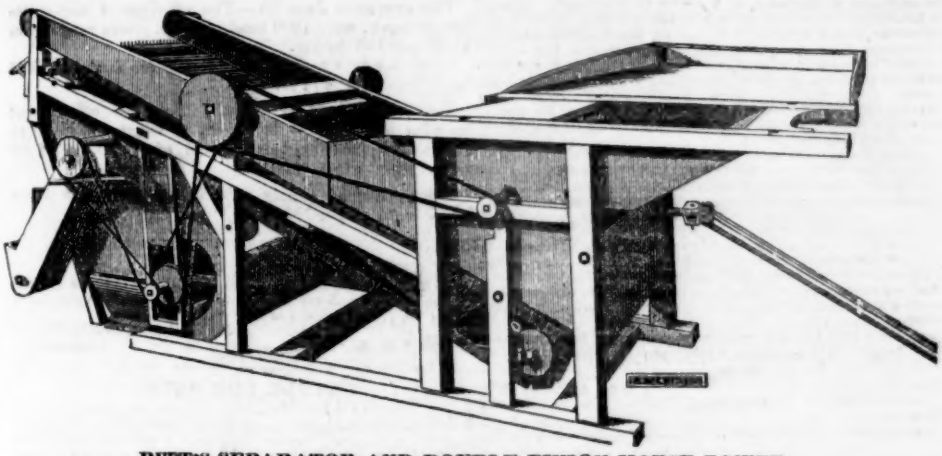
There came a man in days of old,
To hire a piece of land for gold,
And urged his suit in accents meek,
"One crop alone, is all I seek;
That harvest o'er my claim I yield,
And to its lord resign the field."

The owner some misgivings felt,
And coldly with the stranger dealt,
And found his last objection fail,
And honied eloquence prevail,
So took the proffer'd price in hand,
And for one *crop* leased out the land.

The wily tenant sneer'd out with pride,
And sowed the spot with acorns wide;
At first, like tiny shoots they grew,
Then broad and wide their branches threw,
But long before these oaks sublime
Aspiring reach'd their forest prime,
The cheated landlord mouldering lay
Forsaken with his kindred clay.

Oh ye, whose years unfolding fair,
Are fresh with youth and free from care,
Should Vice or Indolence desire,
The garden of your soul to hire,
No parley hold, eject the suit,
Nor let one seed the soil pollute.

My child, their first approach beware,
With firmness break the insidious snare,
Lest as the acorns grew and throve,
Into a sun excluding grove,
Thy sins, a dark o'ershadowing tree,
Shut out the light of heaven from thee.—*Sel.*



PITT'S SEPARATOR AND DOUBLE PINION HORSE POWER.

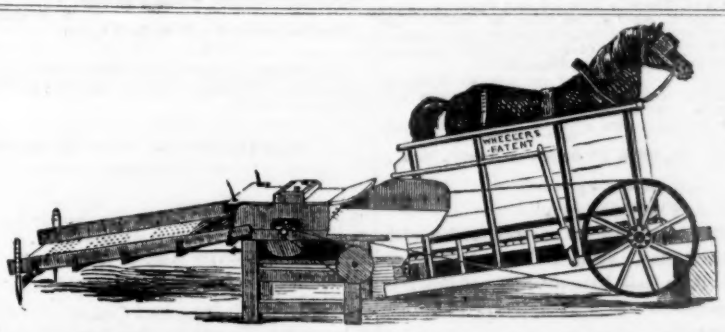
THE subscriber having established an Agricultural Machine Shop at Springfield, Clark County, Ohio, has now for sale, Fifty of his Separators and Horse Powers. The above cut is a representation of the Separator It is the same Machine *that has long stood and now stands unrivaled* by any machine for threshing and cleaning grain. It has been exhibited at State and County Agricultural Fairs, in the United States and in Canada, and always received the FIRST PREMIUM. I therefore offer it to those who wish to purchase a good machine, to be all I claim for it, viz: The best machine for Threshing and Cleaning Grain in Existence.

THE HORSE POWER for strength, ease, durability and cheapness of repair, is not surpassed. The Driving Wheel is 6 feet in diameter and drives two full Pinions, each receiving an equal amount of Power. Two Beval wheels driven by these Pinions connect with two Pinions on the line shaft, giving said line shaft seventy-five revolutions to the horses once round. Thus it will be seen this Horse Power is just double the strength of any single geared power, it being literally a double horse power throughout.

PITT'S MILL FOR GRINDING CORN AND COB, FOR PROVENDER.—It will grind from ten to twenty bushels per hour. There is now over one hundred of the mills in the hands of the American farmers, who are well satisfied with their operation and durability.

The mill is furnished with an extra hopper for grinding shelled corn, &c., which it reduces to the required fineness for provender, very rapidly. It is driven by hand and is easily adapted to horse, steam, or water power. *Price* $50.

Springfield, Ohio, May 25, 1849. JOHN A. PITTS.



Wheeler's Patent Improved Portable RAIL ROAD HORSE POWERS AND OVER-SHOT THRESHERS AND SEPARATORS.

HAVING sold about two hundred and fifty sets of these Powers and Threshers during the past eighteen months, many of which were purchased by some of the large Wheat Growers in this State, Vermont, Ohio, Indiana, Michigan, Illinois, Wisconsin, and Canada, and without exception having given entire satisfaction, (which was guarantied in all cases,) I do not hesitate to recommend them to Farmers and Mechanics desiring such machines, as being in my opinion the most convenient, if not superior in all respects, to any others now in use. Three men, with a Single Power, can thresh 75 to 100 bushels of wheat or rye, or four men with a Double Power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the Power, and one man to attend it, the grain can be cleaned for market at the same time.

They can be taken apart and packed very compactly, and forwarded to any distance by canal, rail road, or wagon. The Single Power, with Thresher, Separator, &c., weighs nearly 1100 pounds; the Double Power, with the other apparatus complete, weighs nearly 1700 pounds.

Price of the Single Power,		$80
do do	Thresher,	25
do	Separator and Fixtures,	10
do	Bands for Driving, etc.,	6,20
Saw Mill, complete, in running order,		35
Fan Mill with Crank and Pulleys,		30

The price of the Double Power, Thresher, Separator, etc., complete, is $145, including rights of using, or $35 more than Single Power.

The above are sold singly or together as desired.

All Machines and Powers are warranted to perform according to the foregoing statements, and in case the purchaser is not satisfied, himself being the judge, they may be returned within three months, at my expense, and the purchase money refunded.

TERMS.—Cash on delivery of the machines. All orders should be addressed Albany, and will be promptly attended to, and machines delivered in care of rail road, canal or steam boat in Albany, Rochester, or Buffalo, the lowest rates for transportation from Albany only being added to the published prices. Remittances by mail at my risk.

These machines have been exhibited in operation at the fairs of the New York State Agricultural Society 1847 and 1848, each time receiving the premium for the best Tread or Endless chain Power. It was also exhibited in operation at the Colonial Fair at Coburg, Canada, the past year, where it received a diploma and the highest encomiums of the committee—it being made out of the province could not receive any premium. It was also exhibited in operation at the District Fair, under the patronage of the Ohio State Board of Agriculture, held at Xenia in October last, where it received from the committee of the Board, a DIPLOMA for being, in their opinion, the best Horse Power and Thresher they had ever seen in operation, and in their report they warmly recommended it to the farmers of Ohio. Among the committee's names attached to the diploma, are Gov. ALLEN TRIMBLE, Col. SAMUEL MEDARY, GEO. TOWNSLEY, Esq., ABNER REED, JEREMIAH G. GEST.

It was also exhibited in operation at the Fair of the Hamilton Co. Agricultural Society, near Cincinnati, Ohio, with like success as at Xenia. It was also exhibited in operation at the Fair of the Monroe

County Society at Rochester, N. Y., with the like result. Also at the Rensselaer County held at Troy, in 1847 and 1848,—at the Saratoga county, held at Ballston, N. Y.,—at the Worcester county, held at Worcester, Mass.,—and in no case has its exhibition and operation failed to secure to it the highest regard and diplomas and premiums for its utility, simplicity, durability, efficacy and cheapness of cost.

Having increased facilities for the manufacturing of the above machines in this city, the public can be supplied with them at short notice, at wholesale and retail.

To those farmers who wish the machines to sell, and will put them running in their vicinities, a fair discount will be allowed.

For terms, and conditions of sale, and warranty see the Albany Cultivator, Genesee Farmer, Prairie Farmer, and American Agriculturist; also, catalogues and circulars of the Albany Agricultural Warehouse and Seed Store.

These machines are acknowledged superior by all who have used them, and having been extensively used since 1811, are known to be durable—and are much improved in several respects.

The cost of threshing with these machines, has been variously estimated at from one-half to one-third that with the ordinary sweep powers.

Annexed is a statement of expenses of operating a two horse machine, compared with the ordinary kind—as given by an extensive farmer in Illinois, the past season:

Five men in threshing time to thresh and clean, averaging 200 bushels per day for market,	$5 00
Two horses,	1 00
Boarding 5 men and two horses, at 3s,	2 63
	$8 63

Amounting to a little over 4¼ cents per bushel—while he was enabled at all times to take advantages of prices, seasons, &c., and to do his work without being dependant upon others for labor or machines.

While his expenses, when he hired machines, were never less than the following:

For threshing 250 bushels per day, at 5 cents,	$12 50
Furnishing four horses of six, (2 belonging to machine.)	2 00
Six men, (beside two with machine,)	6 00
Boarding all hands and horses,	5 25
	$25 75

Amounting to about 10¼ cents per bushel. And if to this be added the averaze loss by imperfect threshing and separation of grain from straw, more than with Wheeler's Thresher and Separator of not less than five per cent of grain at one dollar per bushel, would amount to nearly 15¼ cents per bushel, or more than three times the expense with Wheeler's machine. To say nothing of the delays and losses consequent upon depending upon others, &c.

The foregoing is but a fair statement of the expenses of the majority of the grain-growing farmers for threshing; and where labor and grain are valuable, these savings are well worth counting.

All orders and communications are solicited, and will receive prompt attention. HORACE L. EMERY.

No. 369 & 371 Broadway, Albany, N. Y.

June 15, 1849.

The Markets.

News from Europe continues of an exciting character, but has no material effect on the markets. Bread stuffs continue low, with no immediate prospects of improvement. The accounts of the growing crops in Europe are generally favorable.

Cincinnati, June 30.—Flour 3,75 @ 3,80 per barrel; Wheat 75 @ 78 per bu.; Oats 30 @ 31; Corn 30 @ 32; barley 60 @ 65; flax seed 87 @ 90; Potatoes 70 @ 75; Dried apples 50 @ 55 cts. per bu.; Peaches 140 @ 150.—Pork, mess, $9 @ 9,50 per bbl. Lard 6½ @ 7 per lb.; Butter for packing, 8 @ 9 cts.—best roll butter retails at 20 cts. Cheese continues at 6½ @ 6¾ for shipping—extra quality for retail, 8 @ 10 cts. *Wool* is quoted, full blood 28 @ 30; ¾ do 26 @ 27 cts.; ½ do 25 @ 2[illegible] cts.; ¼ do 23@ 24 cts.; common 20@ 22 cts.; pulled 18 @ 20 cts.

(Note.—Prices of family marketing in Cincinnati and some other towns, are much affected by the fear of Cholera. Fruit and vegetables are but little used, hence very low in price; and such articles as chickens, eggs and fresh butter, are bought up by hucksters and sold at high prices.)

Cleveland, June 28.—Flour $4; Wheat 81 @ 82 cts.; Corn 40; Oats 25; Barley 45; Potatoes 87; Pork $10.—Butter 8 @ 10 cts; Cheese 5 @ 6¼ cts. Wool 18 @ 25 cts.

New York, June 30.—Flour is active but at low prices, say $4,69 @ 4,75 for western. Wheat $1,10 @ 1,15 per bu. Corn 56 @ 60 cts. Pork, 8,57 @ 10,25 for prime and mess.

Philadelphia, *June* 25.—The offerings of beef cattle for the week, were 1600 head. *Cattle*, prices range from $7@8 per 100 lbs net.

Cows.—Prices range from $18@30 for fresh, $15@24 for springers, $8@14 for dry.

Baltimore, *June* 25.—Beef Cattle—The offerings at the sales amounted to 380 head, of which 100 went to Philadelphia, and the balance sold at $3 00 to $4 00 gross.

Hogs.—A good supply offering, and we quote from $4 00 to $4 50 per 100 lbs.

FOR SALE.

SIX THOROUGH BRED SOUTH DOWN RAMS—Six months old—bred from Ewes selected at the New York Agricultural Fair of last year. Enquire of

JOSEPH LONGWORTH.

July 2, 1849—6t. Cincinnati.

CATTLE FOR SALE.

140 Head of Cattle, from 2 to 4 years old, 100 fit for the butcher, for sale by the subscriber, half a mile south of Tremont, in Clark county, (on the turnpike.) I will sell part or the whole—this being the third lot I have bought and sold this spring. Persons wishing to purchase will do well to give me a call, and if I have sold I will direct them to other lots that are for sale My cattle are of good quality, in good order and in good pasture.

Tremont, O., June 21, 1849. SILAS H. GARD.

150 THRESHING MACHINES.

THE subscribers have on hand nearly finished upwards of One Hundred

Pitt's Patent Separators.

Which, with the late improvement, are the best lot of *Machines* ever offered for sale in Ohio or elsewhere. Also,

CARY'S DOUBLE PINION AND OTHER HORSE POWERS.

The above Machine is capable of threshing and cleaning fit for market fifty bushels of *Wheat* in an hour.

C. M. RUSSELL & CO.

Massillon, Stark Co., Ohio, April 1, 1849.

Advertisements suited to the character of this paper, are charged at the rate of 6 cents per line for the first, and 3 cents for each subsequent insertion.

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